

CLAIMS:

1. A method for creating a physical teeth model comprising: providing a virtual three dimensional (3D) representation of a patient's dentition that comprises at least a region of the teeth that includes a tooth stump on which a crown is to be fitted or a region on to which a bridge is to be fitted; and preparing a physical model of the jaws of a subject from a blank, based on information from said virtual 3D image.
2. A method according to Claim 1, wherein a computer driven machine prepares said physical model.
- 10 3. A method according to Claim 1 or 2, wherein said model is a plaster model.
4. A method according to Claim 1, comprising, based on information from said virtual 3D image, generating a 3D model of a crown to be fitted on said tooth stump.
- 15 5. A method according to Claim 4, wherein a computer driven milling machine prepares a physical crown based on the 3D image of the crown.
6. A method according to claim 3 or 5, wherein said model is a positive teeth model.
7. A method according to claim 3 or 5, wherein said model is a negative teeth model.
- 20 8. A method for making a model for fabricating a dental crown, a dental bridge or the like, comprising the steps of: making a virtual 3D model of a patient's dentition; creating a 3D data file of said patient's jaws and of the spatial relationship between said jaws in occlusion, based on information from said virtual 3D model; and making said model of said patient's dentition, based on information in said 3D data file.
- 25 9. A method for making a model according to Claim 8, wherein a computer driven milling machine makes said model from a plaster blank.

10. A method for making a model according to Claim 8 or 9, further comprising: locating the jaws of the model in proper occlusion relation; milling an area on the model corresponding to an area where said dental crown is to be mounted; fabricating said dental crown; and fitting said dental crown on said
5 model.
11. A method for making a model according to any one of Claims 8-10, further comprising, based on said 3D data file, generating a digital data representing the three dimensional structure of the virtual crown; and employing said digital data to construct a virtual crown for fitting on a tooth stump.
- 10 12. A method for making a model according to Claim 10, wherein a computer driven milling machine makes a physical model of at least a region of the teeth that includes a tooth stump on which a crown is to be fitted and a physical model of the crown to be fitted on said tooth stump.
13. A method according to Claim 1, wherein said physical model is a positive
15 model comprises two members, one representing the upper jaw and the other the lower jaw, both members are produced with markings to provide the technician with clues for proper alignment of the two members.
14. A method according to Claim 1, wherein said physical model is a negative model from which a positive working model can be produce, said negative model
20 comprises two members, one representing the upper jaw and the other the lower jaw, both members are produced with markings to provide the technician with clues for proper alignment of the corresponding two members of said positive working model.
15. A method according to Claim 1, wherein said physical model is a positive
25 model comprises two members, one representing the upper jaw and the other the lower jaw, both members are produced with an alignment arrangement to permit proper occlusion alignment of the two members.
16. A method according to Claim 15, wherein the alignment arrangement includes a mounting arrangement for mounting said members on an articulator.

17. A method according to Claim 15, wherein the alignment arrangement includes one or more alignment reference components in each of said members, said components in the two members corresponding to one another with each component in one of said members fits with the corresponding component in the
5 other of said members to yield proper alignment of the two members.

18. A method according to Claim 1, wherein said physical model is a negative model from which a positive working model can be produce, said negative model comprises two members, one representing the upper jaw and the other the lower jaw, both members are produced with an alignment arrangement to permit proper
10 occlusion alignment of the two members of said positive working model.

19. A method according to Claim 18, wherein the alignment arrangement of the negative model includes a mounting arrangement for mounting said members of the positive working model on an articulator.

20. A method according to Claim 18, wherein the alignment arrangement of
15 said negative model includes one or more alignment reference components for the creation of respective alignment reference components in each of the members of the positive working model, the components in the two members of the positive model corresponding to one another such that each component in one of said members fits with the corresponding component in the other of said members to
20 yield proper alignment of the two members.

21. A method for creating a physical teeth model comprising: providing a virtual three dimensional (3D) representation of a patient's dentition that comprises at least a region of the teeth that includes a tooth stump on which a crown is to be fitted or a region on to which a bridge is to be fitted; generating a digital
25 information for the fabrication of a physical teeth model; and preparing a physical model of the jaws of a subject from a blank, based on information from said virtual 3D image.

22. A method according to claim 21, wherein said physical teeth model is a positive model.

- 23.** A method according to claim 21, wherein said physical teeth model is a negative model from which a positive working model can be fabricated.
- 24.** A method according to claim 23, wherein said virtual three dimensional (3D) representation of a patient's dentition is a positive representation.
- 5 **25.** A method according to claim 23, wherein said virtual three dimensional (3D) representation of a patient's dentition is a negative representation.